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Region 4

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UNITED STATES ENVIRONMENTAL PROTECTION AGENCY

35TH AVENUE REMOVAL INVESTIGATION
BIRMINGHAM, ALABAMA
JEFF CROWLEY, ON-SCENE COORDINATOR

FIELD SAMPLING LOGBOOK

Book 1 **of** ___

Inclusive Dates: 12/4/12 - 12/04/12

List of Sampling Team in logbook:

Name	Initials	Organization/Duties
(b) (6)		_____,Team Leader
		_____
		_____
_____	_____	_____
_____	_____	_____
_____	_____	_____

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Sampling Procedures and Methodology

Unless specified elsewhere in this logbook, all soil samples will be collected in accordance with the EPA Science and Ecosystem Division (SESD) Field Branches Quality System and Technical Procedures (FBQSTP) Soil Sampling (SESDPROC-300-R2) based on the following design.

The total number of 5-point composite surface soil samples (0-4 inches below ground surface) to be collected from each property will be based on the lot size as follows:

- For residential properties with a total parcel lot size equal to or less than (≤) 5,000 square feet - the front yard and back yards of each property. If the property has a substantial side yard (primarily corner lots), then one composite soil sample may also be collected from the side yard. Aliquots will be collected away from influences with drip lines and burn areas in a five dice configuration (each of the four corners and the center).
- For residential properties with a total parcel lot size greater than (>) 5,000 square feet and ≤ ¼-acre - the property should be divided into two roughly equal surface areas. If the property has a substantial side yard (primarily corner lots), then one composite soil sample may be collected from the side yard with the remainder of the property being divided into two roughly equal surface areas. Aliquots will be collected away from influences including drip lines and burn areas with reasonably equal spacing between aliquots.
- Residential properties over ¼-acre in parcel lot size will be divided into ¼-acre sections. When dividing any such property with a substantial side yard (primarily corner lots), one composite soil sample may be collected from the side yard. Aliquots will be collected away from influences including drip lines and burn areas in a five dice configuration, if possible, with reasonably equal spacing between aliquots.

Grab surface soil samples will be collected from apparent exposure pathways where active play sets are located.

Three-point composite surface soil samples will be collected from distinct vegetable gardens from each residential property.

Samples shall not be collected under paved areas or under stationary fixed structures.

Grab sediment samples will be collected in accordance with EPA SESD FBSTP Sediment Sampling (SESDPROC-200-R2) from any surface water drainage pathways located on individual properties, as directed by the OSC, and in and along the banks of the 34th Street North Ditch.

Each surface soil or sediment sample should be homogenized in a stainless steel bowl. One 8-ounce jar will be filled and the remaining sample material will be placed in zip-top bags for screening. Information identifying the location, sample, and date/time will be inscribed on each jar and zip-top bag.

All sample bags will be screened for metals in accordance with SESD FBQSTP Field XRF Measurement (SESDPROC-107-R2) using a Niton XRF. The sample will be dried before sieving or analysis is performed. Once the sample has dried, the sample will be divided into two subsamples; one subsample will be sieved through a #10 screen (2 mm) and the other will be left unsieved. Once separated into sieved and unsieved samples, the zip-top bag will be compressed by folding over the excess plastic and removing as much air and space from the sample as possible. The XRF will be placed directly on the exterior of the compressed sample in the plastic zip-top bag to measure metals concentrations. Following XRF screening, the unsieved portion of the sample material will be containerized into one 8-ounce jars and the sieved portion of the sample will be containerized into another 8-ounce jar.

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Based on the site DQOs the 8-ounce jars of surface soil and sediment samples should be submitted to PEL, Tampa, Florida (a NELAC certified laboratory) for low level PAH, and/or TCL SVOC, RCRA metals, PCB, and/or Hexavalent Chromium analysis. RCRA metals will be analyzed from both the sieved and unsieved portions of the sample. All other analysis will be conducted on the unsieved portion.

The location of each aliquot will also be logged in accordance with SESD FBQSTP Global Positioning System (SESDPROC- 110-R3) using a Trimble GPS.

A description of the color and texture of the aliquot material will be recorded in each box.

The ***station ID*** for each location will consist of seven characters, beginning with the six digit Property ID designation for the property followed by a alphabetic letter beginning with "A".

e.g. CV0001A would be the station ID for the front yard 5-pt composite sample collected at the property with Property ID CV0001.

The ***sample ID*** for each sample is the station ID with "CS" (composite soil), "GS" (grab soil), "SD" (sediment), or "SW" (surface water) appended, therefore, the sample ID for this sample would be CV0001A-CS. Co-located duplicates will be designated by appending a "D" to the end of the sample ID. Pan splits will be identified by appending an "SP" to the end of the sample ID.

ADDRESS: (b) (6) PROPERTY ID: HP0005

DATE: 12/4/12 ARRIVAL TIME: 0830

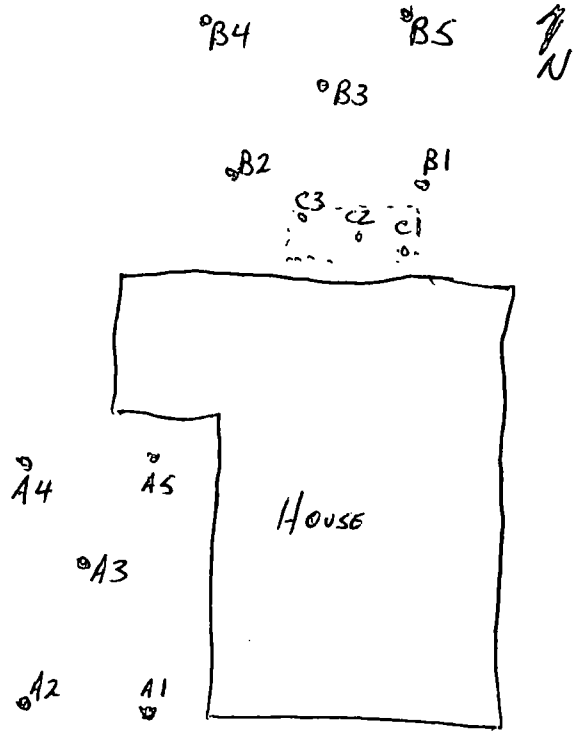
Other pertinent information (weather conditions, etc.):

Weather overcast, low 60s

PROPERTY COMMENTS:

House structure with brick pathways in front yard

Grid for property sketch



(b) (6)

STATION ID: HP-0005 SAMPLE ID: HP-0005A-CS

SAMPLE COLLECTION TIME: 0900

Description of sample location (front, back, side yard; vegetable garden; play set; ditch, etc):

Front Yard

Collection: (Composite) or Grab MS/MSD? Y or (N)

Field Duplicate or Split: *Yes or* (No) *If yes, indicate* Duplicate/split sample station ID: _____

GPS Coordinates: Trimble [✓] Instrument #: 018595 Logged? (Y) or N

Aliquot #1: *Latitude:* 33.56124253 N *Longitude* 86.79784742 W

Media description: Dark Brown Damp silty soil, coal slag

Aliquot #2 *Latitude:* 33.56124580 N *Longitude* 86.79792540 W

Media description: Dark Brown Damp silty soil

Aliquot #3: *Latitude:* 33.56132182 N *Longitude* 86.79786804 W

Media description: Dark Brown Damp silty soil

Aliquot #4: *Latitude:* 33.56136973 N *Longitude* 86.79789047 W

Media description: Dark Brown Damp silty soil

Aliquot #5: *Latitude:* 33.56136364 N *Longitude* 86.79786053 W

Media description: Damp Dark Brown silty soil

STATION ID: HP-0005 SAMPLE ID: HP-0005B-CS

SAMPLE COLLECTION TIME: 0915

Description of sample location (front, back, side yard; vegetable garden; play set; ditch, etc):

BACK YARD

Collection: (Composite) or Grab MS/MSD? Y or N

Field Duplicate or Split: *Yes or* (No) *If yes, indicate* Duplicate/split sample station ID: _____

GPS Coordinates: Trimble [✓] Instrument #: 018595 Logged? (Y) or N

Aliquot #1: *Latitude:* 33.56142740 N *Longitude* 86.79775747 W

Media description: Dark Brown Damp silty soil

Aliquot #2 *Latitude:* 33.56144156 N *Longitude* 86.79788528 W

Media description: Dark Brown Damp silty soil

Aliquot #3: *Latitude:* 33.56149588 N *Longitude* 86.79781843 W

Media description: Dark Brown Damp silty soil

Aliquot #4: *Latitude:* 33.56152430 N *Longitude* 86.79789185 W

Media description: Damp Dark Brown silty soil

Aliquot #5: *Latitude:* 33.56155893 N *Longitude* 86.79777653 W

Media description: Dark Brown Damp silty soil

ADDRESS: _____ PROPERTY ID: _____

DATE: _____ ARRIVAL TIME: _____

Other pertinent information (weather conditions, etc.):

_____

PROPERTY COMMENTS:

_____

SAME AS P. 6

_____

_____

_____

Grid for property sketch

STATION ID: HP-0005 **SAMPLE ID:** HP-0005C-CS

SAMPLE COLLECTION TIME: 0930

Description of sample location (front, back, side yard; vegetable garden; play set; ditch, etc):

GARDEN

Collection: (Composite) or Grab **MS/MSD?** Y or (N)

Field Duplicate or Split: *Yes or* (No) *If yes, indicate* **Duplicate/split sample station ID:** _____

GPS Coordinates: Trimble [ ] Instrument #: 018595 Logged? (Y) or N

Aliquot #1: *Latitude:* 33.56142729 N *Longitude* 86.79777268 W

Media description: DARK BROWN DAMP silty soil

Aliquot #2 *Latitude:* 33.56144277 N *Longitude* 86.79781879 W

Media description: DARK BROWN DAMP silty soil

Aliquot #3: *Latitude:* 33.56146003 N *Longitude* 86.79784518 W

Media description: DARK BROWN DAMP silty soil

Aliquot #4: *Latitude:* _____ N *Longitude* _____ W

Media description: _____

Aliquot #5: *Latitude:* _____ N *Longitude* _____ W

Media description: _____

STATION ID: _____ **SAMPLE ID:** _____

SAMPLE COLLECTION TIME: _____

Description of sample location (front, back, side yard; vegetable garden; play set; ditch, etc):

_____

Collection: Composite or Grab **MS/MSD?** Y or N

Field Duplicate or Split: *Yes or No If yes, indicate* **Duplicate/split sample station ID:** _____

GPS Coordinates: Trimble [ ] Instrument #: _____ Logged? Y or N

Aliquot #1: *Latitude:* _____ N *Longitude* _____ W

Media description: _____

Aliquot #2 *Latitude:* _____ N *Longitude* _____ W

Media description: _____

Aliquot #3: *Latitude:* _____ N *Longitude* _____ W

Media description: _____

Aliquot #4: *Latitude:* _____ N *Longitude* _____ W

Media description: _____

Aliquot #5: *Latitude:* _____ N *Longitude* _____ W

Media description: _____

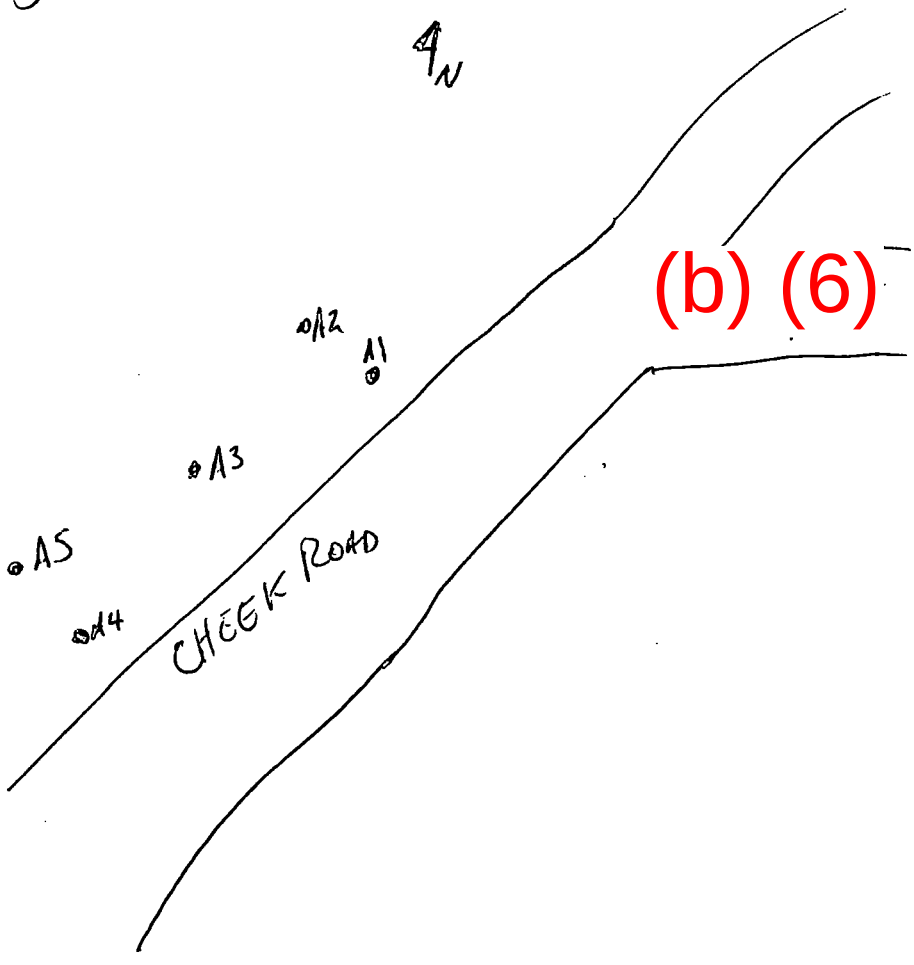
ADDRESS: (b) (6) PROPERTY ID: Fm-0237

DATE: 12/4/12 ARRIVAL TIME: 1035

Other pertinent information (weather conditions, etc.):
Overcast, mild breeze, mid 60s

PROPERTY COMMENTS:
~~SAME AS ROW~~
Property overgrown, no standing structures, On hillside with ~35% slope, multiple aliquots not possible due to thickness of vegitation

Grid for property sketch



STATION ID: FM-0257 SAMPLE ID: FM-0257A-CS

SAMPLE COLLECTION TIME: 1100

Description of sample location (front, back, side yard; vegetable garden; play set; ditch, etc):

At toe of hillside

Collection: (Composite) or Grab MS/MSD? Y or (N)

Field Duplicate or Split: *Yes or* (No) *If yes, indicate* Duplicate/split sample station ID: _____

GPS Coordinates: Trimble [✓] Instrument #: 018595 Logged? (Y) or N

Aliquot #1: *Latitude:* 33.57025330 N *Longitude* 86.80752862 W
Media description: Lt Brown silty dry soil

Aliquot #2 *Latitude:* 33.57026374 N *Longitude* 86.80754043 W
Media description: Lt brown silty dry soil

Aliquot #3: *Latitude:* 33.57022800 N *Longitude* 86.80757088 W
Media description: Lt. brown silty dry soil

Aliquot #4: *Latitude:* 33.57018423 N *Longitude* 86.80757690 W
Media description: Lt brown silty dry soil

Aliquot #5: *Latitude:* 33.57019697 N *Longitude* 86.80760431 W
Media description: Lt brown silty dry soil

STATION ID: _____ SAMPLE ID: _____

SAMPLE COLLECTION TIME: _____

Description of sample location (front, back, side yard; vegetable garden; play set; ditch, etc):

Collection: Composite or Grab MS/MSD? Y or N

Field Duplicate or Split: *Yes or No If yes, indicate* Duplicate/split sample station ID: _____

GPS Coordinates: Trimble [ ] Instrument #: _____ Logged? Y or N

Aliquot #1: *Latitude:* _____ N *Longitude* _____ W
Media description: _____

Aliquot #2 *Latitude:* _____ N *Longitude* _____ W
Media description: _____

Aliquot #3: *Latitude:* _____ N *Longitude* _____ W
Media description: _____

Aliquot #4: *Latitude:* _____ N *Longitude* _____ W
Media description: _____

Aliquot #5: *Latitude:* _____ N *Longitude* _____ W
Media description: _____

ADDRESS: ~~FM 0250~~ (b) (6) PROPERTY ID: FM 0250

DATE: 12/4/12 ARRIVAL TIME: 1035

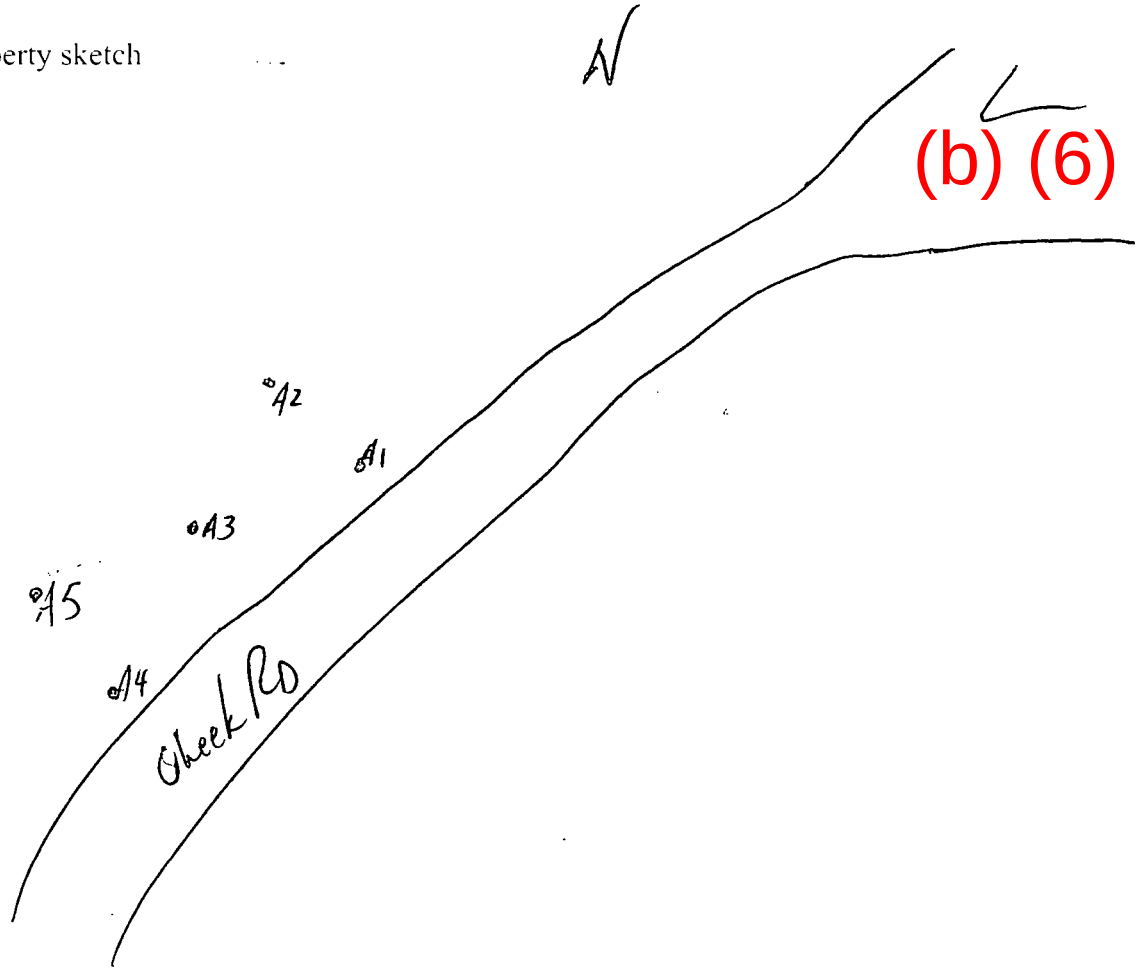
Other pertinent information (weather conditions, etc.):

Overcast, mild breeze, mid 60s

PROPERTY COMMENTS:

Property overgrown, no standing structures, on hillside with a 35° slope

Grid for property sketch



STATION ID: FM-0250 SAMPLE ID: FM-0250A-CS

SAMPLE COLLECTION TIME: 1115

Description of sample location (front, back, side yard; vegetable garden; play set; ditch, etc):

At toe of hillside

Collection: (Composite) or Grab MS/MSD? Y or (N)

Field Duplicate or Split: *Yes or* (No) *If yes, indicate* Duplicate/split sample station ID: _____

GPS Coordinates: Trimble [✓] Instrument #: 018595 Logged? (Y) or N

Aliquot #1: *Latitude:* 33.5701 6971 N *Longitude* 86.80757044 W

Media description: Lt brown dry silty soil

Aliquot #2 *Latitude:* 33.5701 9266 N *Longitude* 86.80761710 W

Media description: Lt brown dry silty soil

Aliquot #3: *Latitude:* 33.5701 0567 N *Longitude* 86.80765852 W

Media description: Lt brown dry silty soil

Aliquot #4: *Latitude:* 33.57002183 N *Longitude* 86.80766842 W

Media description: ~~33.57002183~~ Lt brown dry silty soil, some clay

Aliquot #5: *Latitude:* 33.5700 3682 N *Longitude* 86.80770710 W

Media description: Lite Brown dry silty soil

STATION ID: _____ SAMPLE ID: _____

SAMPLE COLLECTION TIME: _____

Description of sample location (front, back, side yard; vegetable garden; play set; ditch, etc):

Collection: Composite or Grab MS/MSD? Y or N

Field Duplicate or Split: *Yes or No* *If yes, indicate* Duplicate/split sample station ID: _____

GPS Coordinates: Trimble [ ] Instrument #: _____ Logged? Y or N

Aliquot #1: *Latitude:* _____ N *Longitude* _____ W

Media description: _____

Aliquot #2 *Latitude:* _____ N *Longitude* _____ W

Media description: _____

Aliquot #3: *Latitude:* _____ N *Longitude* _____ W

Media description: _____

Aliquot #4: *Latitude:* _____ N *Longitude* _____ W

Media description: _____

Aliquot #5: *Latitude:* _____ N *Longitude* _____ W

Media description: _____

ADDRESS: (b) (6) PROPERTY ID: FM-0204

DATE: 12/4/2012 ARRIVAL TIME: 14:34

Other pertinent information (weather conditions, etc.):

Overcast, mild breeze, 70°F

PROPERTY COMMENTS:

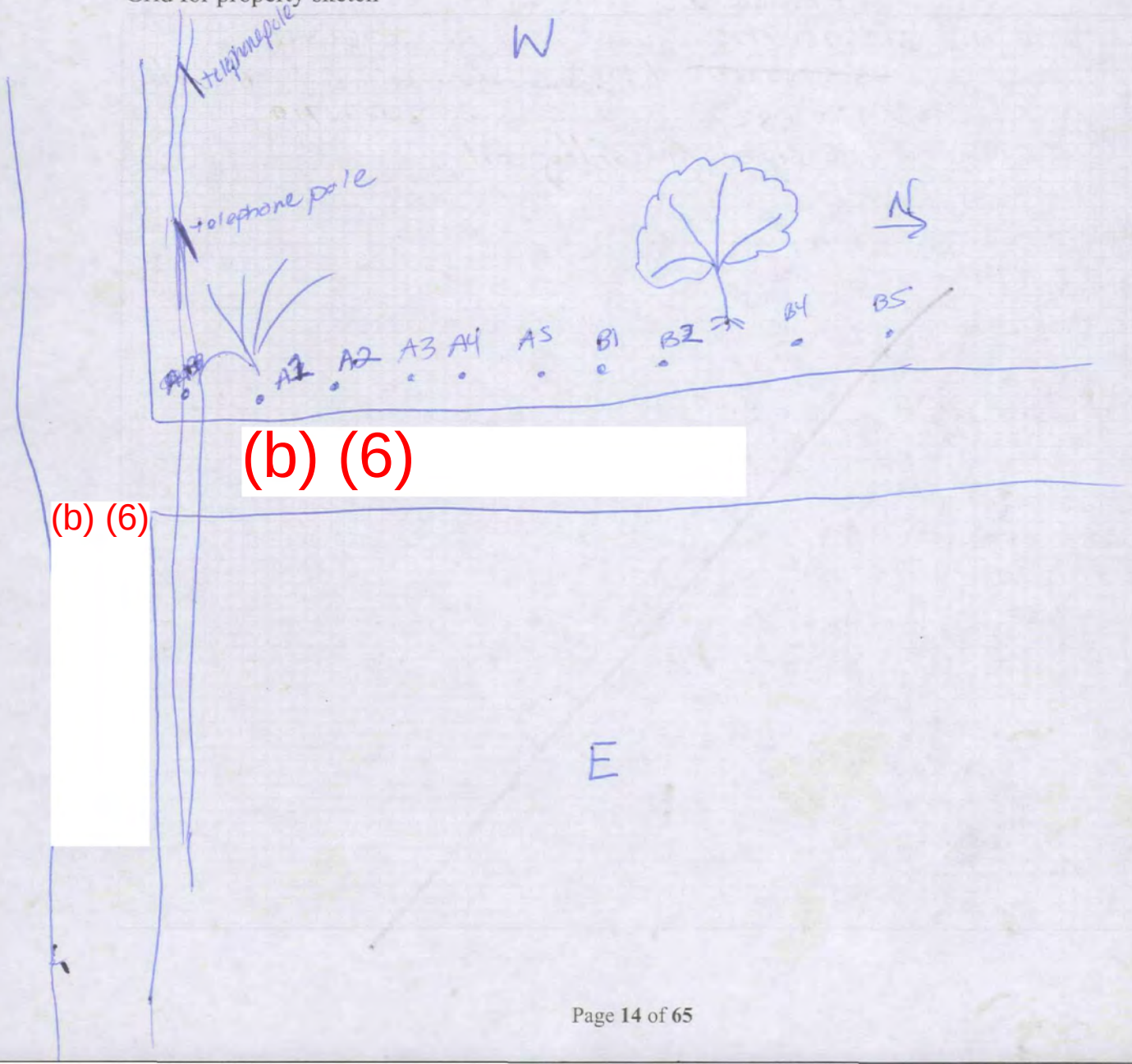
Overgrown, with dense vegetation

Sampled along 31st Place N

aliquot sampled on west of

(b) (6)

Grid for property sketch



FM-0204 FM-0204A-CS

STATION ID: ~~3154 45th Ave N~~ BB 12/4/12 **SAMPLE ID:** ~~FM-0204~~ BB 12/4/12

SAMPLE COLLECTION TIME: 15:02

Description of sample location (front, back, side yard; vegetable garden; play set; ditch, etc):
on the side of 31st Place N; westside

Collection: (Composite) or Grab **MS/MSD?** Y or (N)

Field Duplicate or Split: *Yes or* (No) *If yes, indicate* **Duplicate/split sample station ID:**

GPS Coordinates: Trimble [✓] Instrument #: 018595 Logged? (Y) or N

Aliquot #1: *Latitude:* 33.57030239 N *Longitude* 86.80493417 W
Media description: Dark Brown Silty soil with coal frags/damp

Aliquot #2 *Latitude:* 33.57035694 N *Longitude* 86.80491494 W
Media description: Dark reddish brown silty soil w/some clay/damp

Aliquot #3: *Latitude:* 33.57040841 N *Longitude* 86.80491092 W
Media description: Light brown silty soil with clay/damp

Aliquot #4: *Latitude:* 33.57045999 N *Longitude* 86.80492625 W
Media description: Dark brown silty soil w/ some clay/damp

Aliquot #5: *Latitude:* 33.57046308 ~~Dark brown silty~~ N *Longitude* 86.80493127 W
Media description: Dark brown silty soil w/some clay/damp

STATION ID: FM-0204 **SAMPLE ID:** FM-0204B-CS

SAMPLE COLLECTION TIME: 15:25

Description of sample location (front, back, side yard; vegetable garden; play set; ditch, etc):
on the side of 31st Place N; westside

Collection: (Composite) or Grab **MS/MSD?** Y or (N)

Field Duplicate or Split: *Yes or* (No) *If yes, indicate* **Duplicate/split sample station ID:** N/A

GPS Coordinates: Trimble [✓] Instrument #: 018595 Logged? (Y) or N

Aliquot #1: *Latitude:* 33.57049420 N *Longitude* 86.80490568 W
Media description: DARK brown, silty soil w/ clay

Aliquot #2 *Latitude:* 33.57054339 N *Longitude* 86.80490973 W
Media description: Reddish brown clay w/ coal fragments/damp

Aliquot #3: *Latitude:* 33.57059092 N *Longitude* 86.80491269 W
Media description: Dark brown silty soil w/ some clay/damp

Aliquot #4: *Latitude:* 33.57064487 N *Longitude* 86.80491132 W
Media description: light brown silty soil w/ some clay & coal fragments

Aliquot #5: *Latitude:* 33.57066993 N *Longitude* 86.80493459 W
Media description: Dark brown silty soil

(b) (6)

ADDRESS: ~~FM-0222~~ 12/4/12 PROPERTY ID: FM-0222

DATE: 12/4/12 ARRIVAL TIME: 15:50 (15:50)

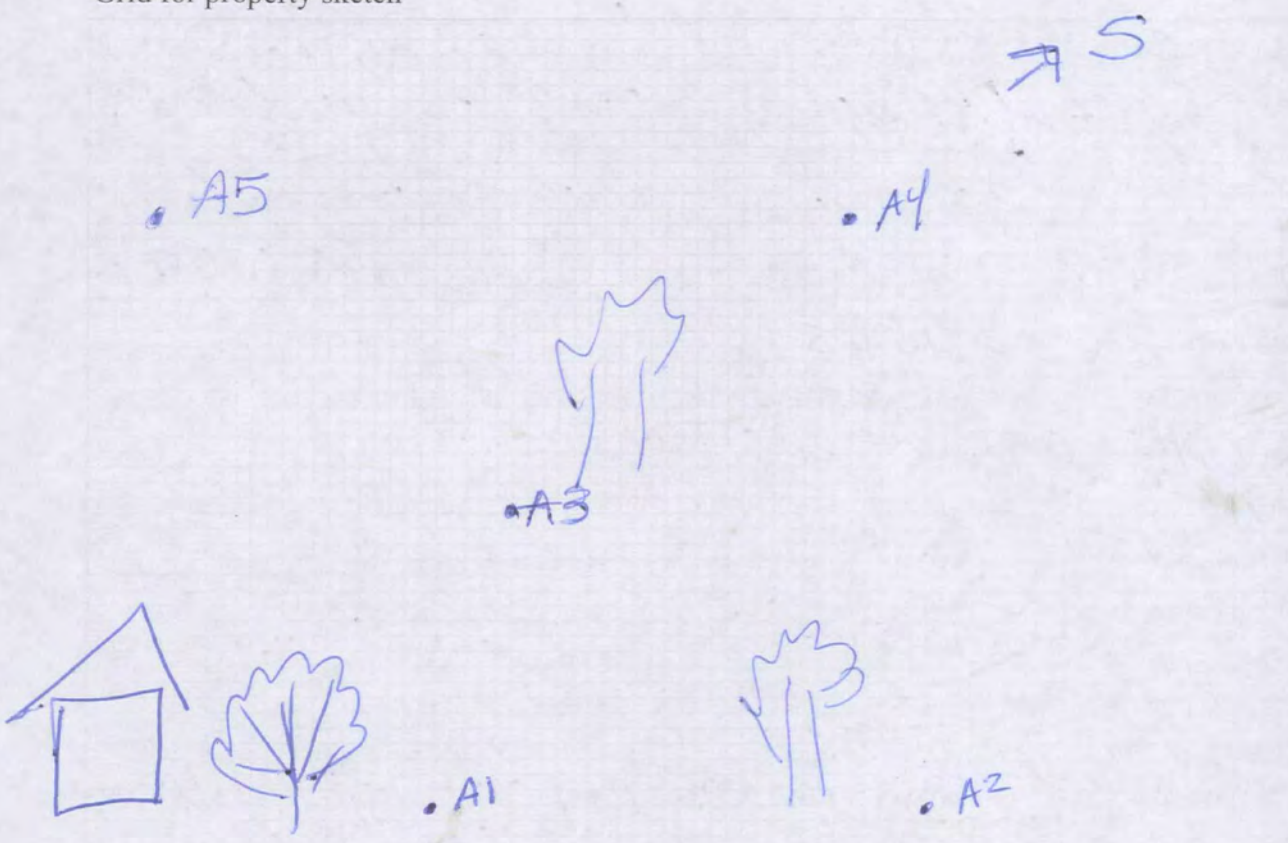
Other pertinent information (weather conditions, etc.):

light rain, overcast

PROPERTY COMMENTS:

overgrown, dense vegetation

Grid for property sketch



(b) (6)

N

STATION ID: FM-0222 **SAMPLE ID:** FM-0222A-CS

SAMPLE COLLECTION TIME: 1600

Description of sample location (front, back, side yard; vegetable garden; play set; ditch, etc):

East side of 46th Ave N

Collection: (Composite) or Grab **MS/MSD?** Y or (N)

Field Duplicate or Split: *Yes or* (No) *If yes, indicate* **Duplicate/split sample station ID:** _____

GPS Coordinates: Trimble [✓] Instrument #: 018595 Logged? (Y) or N

Aliquot #1: *Latitude:* ~~Dark brown silty soil~~ 33.57113062 N *Longitude* 86.80535355 W

Media description: Dark brown silty soil w/ coal fragments

Aliquot #2 *Latitude:* 33.57114919 N *Longitude* 86.80544348 W

Media description: Dark brown silty soil

Aliquot #3: *Latitude:* 33.57106586 N *Longitude* 86.80539550 W

Media description: Dark brown silty soil

Aliquot #4: *Latitude:* 33.57096381 N *Longitude* 86.80547731 W

Media description: Dark brown silty soil

Aliquot #5: *Latitude:* 33.57103191 N *Longitude* 86.80535369 W

Media description: Dark brown silty soil

STATION ID: _____ **SAMPLE ID:** _____

SAMPLE COLLECTION TIME: _____

Description of sample location (front, back, side yard; vegetable garden; play set; ditch, etc):

Collection: Composite or Grab **MS/MSD?** Y or N

Field Duplicate or Split: *Yes or No If yes, indicate* **Duplicate/split sample station ID:** _____

GPS Coordinates: Trimble [ ] Instrument #: _____ Logged? Y or N

Aliquot #1: *Latitude:* _____ N *Longitude* _____ W

Media description: _____

Aliquot #2 *Latitude:* _____ N *Longitude* _____ W

Media description: _____

Aliquot #3: *Latitude:* _____ N *Longitude* _____ W

Media description: _____

Aliquot #4: *Latitude:* _____ N *Longitude* _____ W

Media description: _____

Aliquot #5: *Latitude:* _____ N *Longitude* _____ W

Media description: _____

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